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WHAT IS CLAIMED IS:

- A communications system comprising means for determining whether a receiving agent is capable of calculating a throughput rate and means for adjusting a packet transmission rate in response thereto.
- The communications system as described in claim 1, further comprising means
 for adjusting the throughput rate in a first manner if the receiving agent is
 capable of calculating a throughput rate.
- 3. The communications system as described in claim 1, further comprising means for adjusting the throughput rate in a second manner if the receiving agent is not capable of calculating a throughput rate.
- 4. The communications system as described in claim 2, further comprising means for adjusting the throughput rate in a second manner if the receiving agent is not capable of calculating a throughput rate.
- 5. The communications system as described in claim 1, wherein the means for determining whether a receiving agent is capable of calculating a throughput rate comprises a processor at the receiving terminal that is capable of transmitting data to the sending terminal.
- 6. The communications system as described in claim 4, wherein the means for

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determining whether a receiving agent is capable of calculating a throughput rate comprises a processor at the receiving terminal that is capable of transmitting data to the sending terminal.

- 7. A method for optimizing the transmission of packets in a packet communication network comprising determining whether a receiving agent is capable of calculating a throughput rate for such packets, and adjusting the throughput rate in response thereto.
- 8. The method as claimed in claim 7, further comprising the step of determining if the throughput rate has changed, and if so, updating the throughput rate.
- 9. The method as claimed in claim 7, further comprising the step of adjusting a throughput rate by a sending agent if the receiving agent is not capable of calculating the throughput rate.
- 10. The method as claimed in claim 8, further comprising the step of adjusting a throughput rate by a sending agent if the receiving agent is not capable of calculating the throughput rate.

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